



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Northwest Region  
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BIN C15700  
Seattle, WA 98115-0070

Refer to:  
OSB2001-0218-FEC

April 12, 2002

Mr. Lawrence C. Evans  
U.S. Army Corps of Engineers  
Attn: Susan Sturges  
Regulatory Branch, CENWP-OP-G  
P.O. Box 2946  
Portland, OR 97208-2946

Re: Endangered Species Act Section 7 Formal Consultation and Magnuson-Stevens Act  
Essential Fish Habitat Consultation for the Stafford Bridge Replacement Project,  
Mohawk River, Lane County, Oregon (Corps No. 2001-00607)

Dear Mr. Evans:

Enclosed is a biological opinion (Opinion) prepared by the National Marine Fisheries Service (NMFS) pursuant to section 7 of the Endangered Species Act (ESA) on the effects of issuance of a permit by the Corps of Engineers (COE) for replacement of the Stafford Bridge on the Mohawk River proposed by Lane County Public Works, Lane County, Oregon. In this Opinion, NMFS concludes that the proposed action is not likely to jeopardize the continued existence of ESA-listed Upper Willamette River chinook salmon (*Oncorhynchus tshawytscha*) or destroy or adversely modify designated critical habitat(s). As required by section 7 of the ESA, we have included reasonable and prudent measures with non-discretionary terms and conditions that are necessary to minimize the potential for incidental take associated with this action.

This Opinion also serves as consultation on essential fish habitat pursuant to section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act and implementing regulations at 50 CFR Part 600.

If you have any questions regarding this consultation, please contact Christy Fellas of my staff in the Oregon Habitat Branch at 503.231.2307.

Sincerely,

*Michael R. Crouse*  
f.1

D. Robert Lohn  
Regional Administrator

cc: Emery Marko, Lane County



Endangered Species Act - Section 7 Consultation  
&  
Magnuson-Stevens Act  
Essential Fish Habitat Consultation

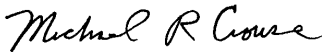
## BIOLOGICAL OPINION

Stafford Bridge Replacement Project,  
Mohawk River, Lane County, Oregon  
(Corps No. 2001-00607)

Agency: Army Corps of Engineers, Portland

Consultation Conducted By: National Marine Fisheries Service,  
Northwest Region

Date Issued: April 12, 2002

Issued by: *for*   
D. Robert Lohn  
Regional Administrator

Refer to: OSB2001-0218-FEC

## TABLE OF CONTENTS

1. ENDANGERED SPECIES ACT .....	<a href="#"><u>1</u></a>
1.1 Background .....	<a href="#"><u>1</u></a>
1.2 Proposed Action .....	<a href="#"><u>1</u></a>
1.3 Biological Information and Critical Habitat .....	<a href="#"><u>2</u></a>
1.4 Evaluating Proposed Actions .....	<a href="#"><u>2</u></a>
1.4.1 Biological Requirements .....	<a href="#"><u>3</u></a>
1.4.2 Environmental Baseline .....	<a href="#"><u>4</u></a>
1.5 Analysis of Effects .....	<a href="#"><u>5</u></a>
1.5.1 Effects of the Proposed Action .....	<a href="#"><u>5</u></a>
1.5.2 Effects on Critical Habitat .....	<a href="#"><u>5</u></a>
1.5.3 Cumulative Effects .....	<a href="#"><u>6</u></a>
1.6 Conclusion .....	<a href="#"><u>6</u></a>
1.7 Reinitiation of Consultation .....	<a href="#"><u>7</u></a>
2. INCIDENTAL TAKE STATEMENT .....	<a href="#"><u>7</u></a>
2.1 Amount or Extent of the Take .....	<a href="#"><u>7</u></a>
2.2 Reasonable and Prudent Measures .....	<a href="#"><u>8</u></a>
2.3 Terms and Conditions .....	<a href="#"><u>8</u></a>
3. MAGNUSON-STEVENSON ACT .....	<a href="#"><u>13</u></a>
3.1 Background .....	<a href="#"><u>13</u></a>
3.2 Magnuson-Stevens Fishery Conservation and Management Act .....	<a href="#"><u>13</u></a>
3.3 Identification of EFH .....	<a href="#"><u>14</u></a>
3.4 Proposed Actions .....	<a href="#"><u>14</u></a>
3.5 Effects of Proposed Action .....	<a href="#"><u>15</u></a>
3.6 Conclusion .....	<a href="#"><u>15</u></a>
3.7 EFH Conservation Recommendations .....	<a href="#"><u>15</u></a>
3.8 Statutory Response Requirement .....	<a href="#"><u>15</u></a>
3.9 Supplemental Consultation .....	<a href="#"><u>15</u></a>
4. LITERATURE CITED .....	<a href="#"><u>16</u></a>

## **1. ENDANGERED SPECIES ACT**

### **1.1 Background**

On August 28, 2001, the National Marine Fisheries Service (NMFS) received a letter from the Corps of Engineers (COE) requesting informal consultation on the issuance of a permit to Lane County Public Works to replace the Stafford bridge on the Mohawk River. In the August letter, the COE determined that Upper Willamette River (UWR) chinook (*O. tshawytscha*) may occur within the project area. NMFS responded with a letter dated October 25, 2001, requesting additional information and recommending formal consultation. Based on adequate information received from the COE on January 23, 2002, NMFS has prepared this biological opinion (Opinion). NMFS has determined that the proposed project is “likely to adversely affect” (LAA) the listed species or their designated critical habitat. NMFS listed UWR chinook salmon under the ESA as threatened on March 24, 1999 (64 FR 14517). Critical habitat for this species was designated on February 16, 2000 (65 FR 7764). Protective regulations for chinook were designated on July 10, 2000 (65 FR 42423).

NMFS has prepared this Opinion to address impacts to these species as a result of the proposed project. The objective of this Opinion is to determine whether the actions, including the proposed mitigation measures, are likely to jeopardize the continued existence of the above listed species or destroy or adversely modify critical habitat.

### **1.2. Proposed Action**

The COE proposes to issue a permit for a proposed project involving construction of a 380-foot, three-span concrete girder bridge on the Mohawk River near Mohawk, Oregon. A temporary construction access bridge will be built by driving piles. The proposed bridge will be constructed from the temporary bridge, 10 to 20 feet downstream from the existing bridge. Two interior bent cofferdams will be constructed in the channel. After the cofferdam cells have been placed, the area will be seined and dewatered by a biologist experienced in seining and handling fish. Steel foundation piling and pile caps will be constructed in the dry. The excavations in the cofferdams will be backfilled with riprap and capped with a layer of clean bar run gravel and native sediment material.

The temporary work bridge will remain in place approximately two to three weeks to provide enough time to erect the precast concrete girders for the new bridge and for the supporting bents to gain sufficient concrete strength. Once the precast girders are in place, the contractor would complete the remainder of the bridge construction from the new bridge itself. The bridge replacement is proposed to take place from April 2002 through October 2003. During construction, turbidity will be monitored and increases shall be limited to 10% above background as measured 100 feet below the project. Due to timelines of construction, part of the project is proposed to occur outside the approved in-water work window of July 1 to October 15. Construction of the temporary work bridge, cofferdams and removal of the work bridge are proposed to occur outside the in-water work window.

A pollution control plan (PCP) and best management practices to be incorporated in the proposed project are listed on pages four to six of the biological assessment report prepared by Environmental Solutions on behalf of Lane County. The staging area for equipment will be located northeast of the existing bridge on a temporary easement at least 200 feet away from the channel. Riparian planting will be completed after the existing bridge and the work bridge are removed to revegetate the disturbed areas. Surface drainage from the bridge will be collected in roadside catch basins approximately 30 feet off each end of the bridge. The catch basin includes an 18-inch sump for collection of sediment and from it. A swale will be constructed parallel to the new bridge to provide detention of stormwater runoff. The water will sheet flow over land from the scour hole to the river. Complete detailed drawings and plans can be found in the plans and technical memorandums submitted by Lane County Public Works.

### **1.3. Biological Information and Critical Habitat**

The action area is defined by NMFS regulations (50 CFR 402) as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.” The action area includes designated critical habitat affected by the proposed action within the Mohawk River. The action area is the Mohawk River and adjacent property including riparian habitat, substrate and water column surrounding the bridge and between mileposts 5.69 and 6.22 of Marcola Road. Essential habitat features for salmonids are: (1) Substrate, (2) water quality, (3) water quantity, (4) water temperature, (5) water velocity, (6) cover/shelter, (7) food (juvenile only), (8) riparian vegetation, (9) space, and (10) safe passage conditions (50 CFR 226). The proposed action may affect the essential habitat features of water quality, cover/shelter, riparian vegetation and safe passage conditions.

### **1.4. Evaluating Proposed Actions**

The standards for determining jeopardy are set forth in Section 7(a)(2) of the ESA as defined by 50 CFR 402 (the consultation regulations). NMFS must determine whether the action is likely to jeopardize the listed species and/or whether the action is likely to destroy or adversely modify critical habitat. This analysis involves the initial steps of: (1) Defining the biological requirements of the listed species, and (2) evaluating the relevance of the environmental baseline to the species' current status.

Subsequently, NMFS evaluates whether the action is likely to jeopardize the listed species by determining if the species can be expected to survive with an adequate potential for recovery. In making this determination, NMFS must consider the estimated level of mortality attributable to: (1) Collective effects of the proposed or continuing action, (2) the environmental baseline, and (3) any cumulative effects. This evaluation must take into account measures for survival and recovery specific to the listed species' life stages that occur beyond the action area. If NMFS finds that the action is likely to jeopardize, NMFS must identify reasonable and prudent alternatives for the action.

NMFS also evaluates whether the action, directly or indirectly, is likely to destroy or adversely modify the listed species' critical habitat. NMFS must determine whether habitat modifications appreciably diminish the value of critical habitat for both survival and recovery of the listed species. NMFS identifies those effects of the action that impair the function of any essential feature of critical habitat. NMFS then considers whether such impairment appreciably diminishes the habitat's value for the species' survival and recovery. If NMFS concludes that the action will adversely modify critical habitat, it must identify any reasonable and prudent alternatives available.

For the proposed action, NMFS' jeopardy analysis considers direct or indirect mortality of fish attributable to the action. NMFS' critical habitat analysis considers the extent to which the proposed action impairs the function of essential elements necessary for migration, spawning, and rearing of the listed species under the existing environmental baseline.

#### **1.4.1. Biological Requirements**

The first step in the methods NMFS uses for applying the ESA section 7(a)(2) to listed salmon is to define the species' biological requirements that are most relevant to each consultation. NMFS also considers the current status of the listed species taking into account population size, trends, distribution and genetic diversity. To assess the current status of the listed species, NMFS starts with the determinations made in its decision to list the species for ESA protection and also considers new data available that is relevant to the determination.

The relevant biological requirements are those necessary for salmonids to survive and recover to naturally reproducing population levels at which protection under the ESA would become unnecessary. Adequate population levels must safeguard the genetic diversity of the listed stock, enhance its capacity to adapt to various environmental conditions, and allow it to become self-sustaining in the natural environment.

For this consultation, the biological requirements are improved habitat characteristics that function to support successful migration, rearing habitat and over-wintering refugia. Salmon survival in the wild depends upon the proper functioning of certain ecosystem processes, including habitat formation and maintenance. Restoring functional habitats depends largely on allowing natural processes to increase their ecological function, while at the same time removing adverse impacts of current practices. In conducting analyses of habitat-altering actions, NMFS usually defines the biological requirements in terms of a concept called Properly Functioning Condition (PFC) and utilizes a "habitat approach" to its analysis.<sup>1</sup> The current status of listed salmonids in the Willamette River, based upon their risk of extinction, has not significantly

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National Marine Fisheries Service, Northwest Region. 26 August 1999. The Habitat Approach: Implementation of Section 7 of the Endangered Species Act for Actions Affecting the Habitat of Pacific Anadromous Salmonids. Guidance memorandum from Assistant Regional Administrators for Habitat Conservation and Protected Resources to staff. 13 pages. NMFS, 525 NE Oregon St, Ste 500, Portland, OR 97232-2737.

improved since the species were listed. NMFS is not aware of any new data that would indicate otherwise.

#### **1.4.2. Environmental Baseline**

The Willamette River watershed covers a vast area (11,500 square miles) bordered on the east and west by the Cascades and the Pacific coast ranges. It drains from as far south as Cottage Grove and flows north to its confluence with the Columbia River. The Willamette River watershed is the largest river basin in Oregon. It is home to most of the state's population, its largest cities, and many major industries. The watershed also contains some of Oregon's most productive agricultural lands and supports important fishery resources (City of Portland 2001).

The uplands (Coast and Cascade Ranges) receive about 80 percent of the precipitation falling on the Willamette River basin, and store much of this water as snow. Ecosystem productivity in these upland streams is relatively low, with aquatic insects gleaned much of their diet from material that falls into running water. In larger, slower tributaries, more plant material is produced in the stream itself. The mainstem supports a highly productive algal community that blooms as temperatures rise in the summer. Insects and some vertebrates feed on these plants, and many vertebrates, including salmonids, feed on stream-dwelling insects. Much of the habitat for Willamette River salmonids has been degraded by various land use practices or eliminated by dams. Wild salmonid populations have declined precipitously over the last century in the Willamette River (WRI 1999).

Basin health has been affected in terms of water and habitat quality and quantity. Many native species have been adversely affected due to the introduction of non-native species, loss of habitat and habitat degradation, and contaminated waters which impede species' development. Some streams and rivers in the basin have high temperatures and insufficient flows during summer months, which adversely impact aquatic species such as salmon and steelhead. Low flows also reduce the ability of the river to dilute contaminants, the presence of which may lead to dangers for both aquatic species and humans. Such contaminants are often found with great frequency in the basin as a result of erosion from agricultural, industrial, urban and forested lands. Increased population and development have further compounded these problems, resulting in the loss of much critical habitat and increased pollution (WRI 1999).

The McKenzie watershed is part of the Willamette River basin. The Mohawk sub-watershed contains about 113,700 acres, 13 percent of the McKenzie watershed. The 26-mile-long Mohawk River runs down the center of the watershed with a gradual average gradient of 31 feet/mile. The Mohawk River enters the McKenzie River at river mile 13.7 contributing an average annual discharge of 524 cfs. Average base flow (low flow) for the Mohawk River is about 19 cfs with a range between 10 cfs and 34 cfs (Lane Council 1996).

Salmonids use the lower Mohawk River as a seasonal migratory corridor to habitat farther upriver and in tributary streams. Dominant species in the Mohawk River include resident and fluvial cutthroat trout as well as spring chinook salmon (Huntington 2000). There is seasonal

use of the lower Mohawk River by juvenile spring chinook, although the watershed is unfavorable for reproduction due to high summer temperatures, low late season flows and lack of good adult holding or spawning areas (Huntington 2000). The Mohawk River below river mile 23.5 is included in the Oregon Department of Environmental Quality 303(d) list as being water quality limited for temperature. There have been no reports of spring chinook spawning in the river except for fish outplanted from the hatchery. None of these outplanted fish are known or suspected to have spawned in the section of river below Stafford bridge (Huntington 2000).

## **1.5 Analysis of Effects**

### **1.5.1 Effects of the Proposed Action**

The potential for an increase in runoff high in pollutants will increase following construction of the new bridge because of increased impervious area of a new, wider bridge. Surface drainage from the bridge will be collected in roadside catch basins with a sump and vegetated swales. This will provide water quality treatment of the runoff prior to entry of the water into the Mohawk River.

Salmonids have evolved in systems that periodically experience short-term pulses (days to weeks) of high suspended sediment loads, often associated with flood events, and are adapted to such high pulse exposures. Adult and larger juvenile salmonids appear to be little affected by the high concentrations of suspended sediments that occur during storm and snowmelt runoff episodes (Bjorn and Reiser 1991). However, research indicates that chronic exposure can cause physiological stress responses that can increase maintenance energy and reduce feeding and growth (Redding et al. 1987, Lloyd 1987, Servizi and Martens 1991). The turbidity from this bridge construction project should be localized and brief, therefore a low probability of direct mortality exists.

There is potential for listed species to be caught in the cofferdams. Prior to construction these areas will be seined and fish will be removed before dewatering. Fish passage will be maintained throughout the project. The construction of the cofferdams is scheduled to occur in June with removal in October or early November. Minimal effects are expected due to limited usage of the Mohawk River during this time by juvenile chinook.

Implementation of best management practices including equipment staging 350 feet away from the water, turbidity monitoring, following a pollution control plan and using dewatering and seining guidelines will minimize the potential for harm to salmonids.

### **1.5.2 Effects on Critical Habitat**

NMFS designates critical habitat based on physical and biological features that are essential to the listed species. Essential features for designated critical habitat include substrate, water quality, water quantity, water temperature, food, riparian vegetation, access, water velocity, space and safe passage. The adjacent riparian zone is also included in the designation. This



zone is defined as the area that provides the following functions: Shade, sediment, nutrient/chemical regulation, streambank stability, and input of large woody debris/organic matter.

Riparian function will be affected by the proposed action. Habitat features that will likely be negatively affected by the proposed action include water quality (turbidity) and riparian vegetation. Riparian vegetation removed during construction will be replaced. Native trees, shrubs and plants will be planted adjacent to the river and the entire area between the river and the easement line. The plantings will improve habitat conditions including microclimate (light, temperature, humidity), contribution of organic matter and woody debris to the channel and resistance to erosion through root strength (Gregory *et al.* 1991. Degree of shading of streams is a function of the structure and composition of riparian vegetation (Gregory *et. al* 1991). As the vegetation matures over time, it will contribute to the improvement of habitat functions. There are no adverse effects on salmonids from the planting of riparian vegetation.

### **1.5.3 Cumulative Effects**

Cumulative effects are defined in 50 CFR 402.02 as those effects of "future state or private activities, not involving federal activities, that are reasonably certain to occur within the action area of the federal action subject to consultation." Future federal actions, including the ongoing operation of hydropower systems, hatcheries, fisheries, and land management activities are being (or have been) reviewed through separate section 7 consultation processes. Therefore, these actions are not considered cumulative to the proposed action.

NMFS is not aware of any specific future non-federal activities within the action area that would cause greater impacts to listed species than presently occurs. NMFS assumes that future private and state actions will continue at similar intensities as in recent years.

## **1.6 Conclusion**

NMFS has determined that, based on the available information, the proposed action is not likely to jeopardize the continued existence of UWR chinook salmon or result in the destruction or adverse modification of critical habitat. NMFS used the best available scientific and commercial data to analyze the effects of the proposed action on the biological requirements of the species relative to the environmental baseline, together with cumulative effects. NMFS applied its evaluation methodology to the proposed action and found that it could cause slight degradation of anadromous salmonid habitat due to increases in turbidity and reduction of riparian habitat. These effects will be short-term and minor in scale. The majority of in-water work will be performed during the in-water work window. Construction and removal of the work bridge outside the in-water work window will prevent the need to leave temporary structures in the water until the next year's work window. As the new riparian vegetation matures over time, it will contribute to the improvement of habitat functions including microclimate, erosion control and shelter for salmonids.

Furthermore, NMFS expects that few juvenile chinook salmon will be present in the Mohawk River.

## **1.7 Reinitiation of Consultation**

Consultation must be reinitiated if: (1) The amount or extent of taking specified in the incidental take statement is exceeded, or is expected to be exceeded, (2) new information reveals effects of the action may affect listed species or critical habitats in a way not previously considered, (3) the action is modified in a way that causes an effect on listed species that was not previously considered, or (4) a new species is listed or critical habitat is designated that may be affected by the action (50 CFR 402.16).

## **2. INCIDENTAL TAKE STATEMENT**

Section 4 (d) and Section 9 of the ESA prohibit any taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct) of listed species without a specific permit or exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, and sheltering (64 FR 60727; November 8, 1999). Harass is defined as actions that create the likelihood of injuring listed species to such an extent as to significantly alter normal behavior patterns which include, but are not limited to, breeding, feeding, and sheltering. Incidental take is take of listed animal species that results from, but is not the purpose of, the Federal agency or the applicant carrying out an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to, and not intended as part of, the agency action is not considered prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

An incidental take statement specifies the impact of any incidental taking of threatened species. It also provides reasonable and prudent measures that are necessary to minimize impacts and sets forth terms and conditions with which the action agency must comply in order to implement the reasonable and prudent measures.

### **2.1 Amount or Extent of the Take**

NMFS anticipates that the action covered by this Opinion is reasonably certain to result in incidental take of listed salmonids because of detrimental effects from in-water work and disturbance of riparian habitat. Effects of actions such as increased turbidity and disturbance of riparian habitat are largely unquantifiable in the short term, and are not expected to be measurable as long-term effects on habitat or population levels. The best scientific and commercial data available are not sufficient to enable NMFS to estimate a specific amount of incidental take resulting from the entire project to the species itself. In instances such as these, NMFS designates the expected level of take as "unquantifiable." However, NMFS expects the possibility exists for take resulting from the handling of juvenile chinook salmon during the

work isolation process. NMFS anticipates that lethal incidental take of up to 20 juvenile chinook salmon could occur as a result of the work isolation process covered by this Opinion. The extent of the take is limited to the action area.

## **2.2 Reasonable and Prudent Measures**

NMFS believes that the following reasonable and prudent measures are necessary and appropriate to avoid or minimize take of listed salmonid species resulting from the action covered by this Opinion. The COE shall include measures that will:

1. Minimize the likelihood of incidental take by applying permit conditions to avoid or minimize disturbance to riparian and aquatic systems from activities involving temporary access roads, use of heavy equipment, earthwork, site restoration, or that may otherwise involve in-water work or affect fish passage by directing the contractor to avoid or minimize disturbance to riparian and aquatic systems.
2. Minimize the likelihood of incidental take by applying permit conditions to avoid or minimize disturbance to aquatic systems from activities involving seining and dewatering.
3. Complete a comprehensive monitoring and reporting program to ensure implementation of these conservation measures are effective at minimizing the likelihood of take from permitted activities.

## **2.3 Terms and Conditions**

To be exempt from the prohibitions of section 9 of the ESA, COE must comply with the following terms and conditions, which implement the reasonable and prudent measures described above for each category of activity.

1. To implement Reasonable and Prudent Measure #1, the COE shall ensure that:
  - a. Pollution and Erosion Control Plan. A Pollution and Erosion Control Plan (PECP) will be developed for the project to prevent point-source pollution related to construction operations. The PECP will contain the pertinent elements listed below and meet requirements of all applicable laws and regulations:
    - i. Methods that will be used to prevent erosion and sedimentation associated with access roads, construction sites, equipment and material storage sites, fueling operations and staging areas.
    - ii. A description of the hazardous products or materials that will be used, including inventory, storage, handling, and monitoring.
    - iii. A spill containment and control plan with notification procedures, specific clean up and disposal instructions for different products, quick response containment and clean up measures that will be available on site, proposed

- methods for disposal of spilled materials, and employee training for spill containment.
- iv. Measures that will be taken to prevent construction debris from falling into any aquatic habitat. Any material that falls into a stream during construction operations will be removed in a manner that has a minimum impact on the streambed and water quality.
- b. Pre-construction activities. Prior to significant alteration of the action area, the following actions will be accomplished.
- i. Boundaries of the clearing limits associated with site access and construction are flagged to prevent ground disturbance of critical riparian vegetation, wetlands and other sensitive sites beyond the flagged boundary.
  - ii. A supply of erosion control materials (e.g., silt fence and straw bales) is on hand to respond to sediment emergencies. Sterile straw or hay bales will be used when available to prevent introduction of weeds.
  - iii. All temporary erosion controls (e.g., straw bales, silt fences) are in-place and appropriately installed downslope of project activities within the riparian area. Effective erosion control measures will be in-place at all times during the contract, and will remain and be maintained until such time that permanent erosion control measures are effective.
- c. Earthwork. Earthwork, including excavation, filling and compacting, is completed in the following manner:
- i. Boulders, rock, woody materials and other natural construction materials used for the project must be obtained from outside of the riparian area.
  - ii. Material removed during excavation will only be placed in locations where it cannot enter streams or other water bodies.
  - iii. All exposed or disturbed areas will be stabilized to prevent erosion.
- (1) Areas of bare soil within 150 feet of waterways, wetlands or other sensitive areas will be stabilized by native seeding,<sup>2</sup> mulching, and placement of erosion control blankets and mats, if applicable, quickly as reasonable after exposure, but within 7 days of exposure.
  - (2) All other areas will be stabilized as quickly as reasonable, but within 14 days of exposure.

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<sup>2</sup> By Executive Order 13112 (February 3, 1999), Federal agencies are not authorized to permit, fund or carry out actions that are likely to cause, or promote, the introduction or spread of invasive species. Therefore, only native vegetation that is indigenous to the project vicinity, or the region of the state where the project is located, shall be used.

- (3) Seeding outside of the growing season will not be considered adequate for permanent stabilization.
  - d. Heavy Equipment. Heavy equipment will be fueled, maintained and stored as follows:
    - i. Vehicle staging, maintenance, refueling, and fuel storage areas will be a minimum of 150 feet horizontal distance from any stream or in an area approved by a NMFS biologist.
    - ii. All vehicles operated within 150 feet of any stream or water body will be inspected daily for fluid leaks before leaving the vehicle staging area. Any leaks detected will be repaired before the vehicle resumes operation.
    - iii. When not in use, vehicles will be stored in the vehicle staging area.
  - e. Site restoration. Site restoration and clean-up, including protection of bare earth by seeding, planting, mulching and fertilizing, is done in the following manner:
    - i. All disturbed areas will be planted with native vegetation specific to the project vicinity or the region of the state where the project is located, and will comprise a diverse assemblage of woody and herbaceous species.
    - ii. No herbicide application will occur as part of this permitted action. Mechanical removal of undesired vegetation and root nodes is permitted.
    - iii. No surface application of fertilizer will be used within 50 feet of any stream channel as part of this permitted action.
    - iv. Plantings will achieve an 80 percent survival success after three years.
      - (1) If success standard has not been achieved after 3 years, the applicant will submit an alternative plan to NMFS. The alternative plan will address temporal loss of function.
      - (2) Plant establishment monitoring will continue and plans will be submitted to NMFS until site restoration success has been achieved.
2. To implement Reasonable and Prudent Measure #2, the COE shall ensure that:
- a. If the fish salvaging aspect of this project requires the use of seine equipment to capture fish, it must be accomplished as follows:
    - i. Before and intermittently during pumping, attempts will be made to seine and release fish from the work isolation area as is prudent to minimize risk of injury.
    - ii. Seining will be conducted by, or under the supervision of a fishery biologist experienced in such efforts. Staff working with the seining

operation must have the necessary knowledge, skills, and abilities to ensure the safe handling of all ESA-listed fish.

- iii. ESA-listed fish must be handled with extreme care and kept in water to the maximum extent possible during seining and transfer procedures. The transfer of ESA-listed fish must be conducted using a sanctuary net that holds water during transfer, whenever appropriate, to prevent the added stress of an out-of-water transfer.
- iv. Seined fish must be released as near as possible to capture sites.
- v. The COE shall ensure that the transfer of any ESA-listed fish to third parties other than NMFS personnel receives prior approval from NMFS.
- vi. The COE shall ensure that any other Federal, state, and local permits and authorizations necessary for the conduct of the seining activities will be obtained prior to project seining activity.
- vii. The COE must allow NMFS or its designated representative to accompany field personnel during the seining activity, and allow such representative to inspect the seining records and facilities.
- viii. A description of any seine and release effort will be included in a post-project report, including the name and address of the supervisory fish biologist, methods used to isolate the work area and minimize disturbances to ESA-listed species, stream conditions before and following placement and removal of barriers, the means of fish removal, the number of fish removed by species, the condition of all fish released, and any incidence of observed injury or mortality.

3. To implement Reasonable and Prudent Measure #3 (monitoring and reporting), the COE shall ensure that:

a. Within 120 days of completing the project, the COE shall ensure submittal of a monitoring report to NMFS describing the COE's success meeting their permit conditions. This report will consist of the following information:

i. Project identification.

- (1) Project name.
- (2) Starting and ending dates of work completed for this project.
- (3) The COE contact person.

ii. Isolation of in-water work area. All projects involving isolation of in-water work areas must include a report of any seine and release activity including:

- (1) The name and address of the supervisory fish biologist.

- (2) Methods used to isolate the work area and minimize disturbances to fish species
  - (3) Stream conditions prior to and following placement and removal of barriers
  - (4) The means of fish removal.
  - (5) The number of fish removed by species.
  - (6) The location and condition of all fish released.
  - (7) Any incidence of observed injury or mortality.
- iii. Pollution and erosion control. A summary of all pollution and erosion control inspection reports, including descriptions of any failures experienced with erosion control measures, efforts made to correct them and a description of any accidental spills of hazardous materials.
- iv. Site restoration. Documentation of the following conditions:
  - (1) Finished grade slopes and elevations.
  - (2) Log and rock structure elevations, orientation, and anchoring, if any.
  - (3) Planting composition and density.
  - (4) A plan to inspect and, if necessary, replace failed plantings and structures for a period of five years, including the compensatory mitigation site.
- v. A narrative assessment of the effects of the project and compensatory mitigation on natural stream function.
- vi. Photographic documentation of environmental conditions at the project site before, during and after project completion.
  - (1) Photographs will include general project location views and close-ups showing details of the project area and project, including pre- and post-construction.
  - (2) Each photograph will be labeled with the date, time, photo point, project name, the name of the photographer, and a comment describing the photograph's subject.
  - (3) Relevant habitat conditions include characteristics of channels, streambanks, riparian vegetation, flows, water quality, and other visually discernable environmental conditions at the project area, and upstream and downstream of the project.

- b. Submit monitoring reports to:

National Marine Fisheries Service  
Oregon Habitat Branch, Habitat Conservation Division  
Attn: OSB2001-0218  
525 NE Oregon Street, Suite 500  
Portland, Oregon 97232-2778

- c. If a dead, injured, or sick endangered or threatened species specimen is located, initial notification must be made to the National Marine Fishery Service Law Enforcement Office, located at Vancouver Field Office, 600 Maritime, Suite 130, Vancouver, Washington 98661 at 360.418.4246. Care will be taken in handling sick or injured specimens to ensure effective treatment and care or the handling of dead specimens to preserve biological material in the best possible state for later analysis of cause of death. In conjunction with the care of sick or injured endangered and threatened species or preservation of biological materials from a dead animal, the finder has the responsibility to carry out instructions provided by Law Enforcement to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed.

### **3. MAGNUSON-STEVENSON ACT**

#### **3.1 Background**

The objective of the essential fish habitat (EFH) consultation is to determine whether the proposed action may adversely affect designated EFH for relevant species, and to recommend conservation measures to avoid, minimize, or otherwise offset potential adverse effects to EFH resulting from the proposed action.

#### **3.2 Magnuson-Stevens Fishery Conservation and Management Act**

The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-297), requires the inclusion of EFH descriptions in Federal fishery management plans. In addition, the MSA requires Federal agencies to consult with NMFS on activities that may adversely affect EFH.

EFH means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (MSA §3). For the purpose of interpreting the definition of essential fish habitat: Waters include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; substrate includes sediment, hard bottom, structures underlying the waters, and



associated biological communities; necessary means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and “spawning, breeding, feeding, or growth to maturity” covers a species' full life cycle (50CFR600.110).

Section 305(b) of the MSA (16 U.S.C. 1855(b)) requires that:

- Federal agencies must consult with NMFS on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH.
- NMFS shall provide conservation recommendations for any Federal or State activity that may adversely affect EFH.
- Federal agencies shall within 30 days after receiving conservation recommendations from NMFS provide a detailed response in writing to NMFS regarding the conservation recommendations. The response shall include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with the conservation recommendations of NMFS, the Federal agency shall explain its reasons for not following the recommendations.

The MSA requires consultation for all actions that may adversely affect EFH, and does not distinguish between actions within EFH and actions outside EFH. Any reasonable attempt to encourage the conservation of EFH must take into account actions that occur outside EFH, such as upstream and upslope activities, that may have an adverse effect on EFH. Therefore, EFH consultation with NMFS is required by Federal agencies undertaking, permitting or funding activities that may adversely affect EFH, regardless of its location.

### **3.3 Identification of EFH**

The Pacific Fisheries Management Council (PFMC) has designated EFH for three species of Pacific salmon: chinook (*Oncorhynchus tshawytscha*); coho (*O. kisutch*); and Puget Sound pink salmon (*O. gorbuscha*)(PFMC 1999). Freshwater EFH for Pacific salmon includes all those streams, lakes, ponds, wetlands, and other water bodies currently, or historically accessible to salmon in Washington, Oregon, Idaho, and California, except areas upstream of certain impassable man-made barriers (as identified by the PFMC), and longstanding, naturally-impassable barriers (i.e., natural waterfalls in existence for several hundred years). Detailed descriptions and identifications of EFH for salmon are found in Appendix A to Amendment 14 to the Pacific Coast Salmon Plan (PFMC 1999). Assessment of potential adverse effects to these species' EFH from the proposed action is based on this information.

### **3.4 Proposed Actions**

The proposed actions are detailed above in section 1.2. The action area includes designated EFH affected by the proposed action within the Willamette River. This area has been designated as EFH for chinook salmon.

### **3.5 Effects of Proposed Action**

As described in detail in section 1.5, the proposed activities may result in short-term adverse effects to several habitat parameters. Bridge replacement may result in effects to water quality, riparian habitat and safe passage of salmonids.

### **3.6 Conclusion**

NMFS believes that the proposed action may temporarily adversely affect the EFH for Pacific salmon species, however, the proposed action is not expected to result in degradation of EFH habitats over the long term.

### **3.7 EFH Conservation Recommendations**

Pursuant to section 305(b)(4)(A) of the Magnuson-Stevens Act, NMFS is required to provide EFH conservation recommendations for any Federal or state agency action that would adversely affect EFH. The conservation measures proposed for the project by the Corps, all Conservation Recommendations outlined above in Section 1.7 and all of the Reasonable and Prudent Measures and the Terms and Conditions contained in Sections 2.2 and 2.3 are applicable to EFH. Therefore, NMFS incorporates each of those measures here as EFH conservation recommendations.

### **3.8 Statutory Response Requirement**

Please note that the Magnuson-Stevens Act (section 305(b)) and 50 CFR 600.920(j) requires the Federal agency to provide a written response to NMFS after receiving EFH conservation recommendations within 30 days of its receipt of this letter. This response must include a description of measures proposed by the agency to avoid, minimize, mitigate or offset the adverse impacts of the activity on EFH. If the response is inconsistent with a conservation recommendation from NMFS, the agency must explain its reasons for not following the recommendation.

### **3.9 Supplemental Consultation**

The Corps must reinitiate EFH consultation with NMFS if either action is substantially revised or new information becomes available that affects the basis for NMFS' EFH conservation recommendations (50 CFR 600.920).

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